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| 5-6 | At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with a gastroenterologic problem. |
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At the conclusion of this unit, the paramedic student will be able to:

- 5-6.1 Describe the incidence, morbidity and mortality of gastrointestinal emergencies. (C-1)
- 5-6.2 Identify the risk factors most predisposing to gastrointestinal emergencies. (C-1)
- 5-6.3 Discuss the anatomy and physiology of the organs and structures related to gastrointestinal diseases. (C-1)
- 5-6.4 Discuss the pathophysiology of inflammation and its relationship to acute abdominal pain. (C-1)
- 5-6.5 Define somatic pain as it relates to gastroenterology. (C-1)
- 5-6.6 Define visceral pain as it relates to gastroenterology. (C-1)
- 5-6.7 Define referred pain as it relates to gastroenterology. (C-1)
- 5-6.8 Differentiate between hemorrhagic and non-hemorrhagic abdominal pain. (C-3)
- 5-6.9 Discuss the signs and symptoms of local inflammation relative to acute abdominal pain. (C-1)
- 5-6.10 Discuss the signs and symptoms of peritoneal inflammation relative to acute abdominal pain. (C-1)
- 5-6.11 List the signs and symptoms of general inflammation relative to acute abdominal pain. (C-1)
- 5-6.12 Based on assessment findings, differentiate between local, peritoneal and general inflammation as they relate to acute abdominal pain. (C-3)
- 5-6.13 Describe the questioning technique and specific questions the paramedic should ask when gathering a focused history in a patient with abdominal pain. (C-1)
- 5-6.14 Describe the technique for performing a comprehensive physical examination on a patient complaining of abdominal pain. (C-1)
- 5-6.15 Define upper gastrointestinal bleeding. (C-1)
- 5-6.16 Discuss the pathophysiology of upper gastrointestinal bleeding. (C-1)
- 5-6.17 Recognize the signs and symptoms related to upper gastrointestinal bleeding. (C-1)
- 5-6.18 Describe the management for upper gastrointestinal bleeding. (C-1)
- 5-6.19 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with upper GI bleeding. (C-3)
- 5-6.20 Define lower gastrointestinal bleeding. (C-1)
- 5-6.21 Discuss the pathophysiology of lower gastrointestinal bleeding. (C-1)
- 5-6.22 Recognize the signs and symptoms related to lower gastrointestinal bleeding. (C-1)
- 5-6.23 Describe the management for lower gastrointestinal bleeding. (C-1)
- 5-6.24 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with lower GI bleeding. (C-3)
- 5-6.25 Define acute gastroenteritis. (C-1)
- 5-6.26 Discuss the pathophysiology of acute gastroenteritis. (C-1)
- 5-6.27 Recognize the signs and symptoms related to acute gastroenteritis. (C-1)
- 5-6.28 Describe the management for acute gastroenteritis. (C-1)
- 5-6.29 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with acute gastroenteritis. (C-3)
- 5-6.30 Define colitis. (C-1)
- 5-6.31 Discuss the pathophysiology of colitis. (C-1)
- 5-6.32 Recognize the signs and symptoms related to colitis. (C-1)
- 5-6.33 Describe the management for colitis. (C-1)
- 5-6.34 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with colitis. (C-3)

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## Gastroenterology: 6

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- I. Introduction
  - A. Epidemiology
    - 1. Incidence
    - 2. Mortality/ morbidity
    - 3. Risk factors
    - 4. Prevention strategies
- II. General pathophysiology, assessment and management
  - A. Pathophysiology of abdominal pain
    - 1. Bacterial contamination
      - a. Perforated appendix
      - b. Pelvic inflammatory disease
    - 2. Chemical irritation
      - a. Perforated ulcer
      - b. Pancreatitis
    - 3. Types of abdominal pain
      - a. Somatic pain
        - (1) Appendicitis
        - (2) Pancreatitis
        - (3) Perforated viscus
          - (a) Gallbladder
          - (b) Ulcer
          - (c) Intestine
      - b. Visceral pain
        - (1) Appendicitis
        - (2) Pancreatitis
        - (3) Cholecystitis
        - (4) Obstruction of hollow viscera
          - (a) Intestines
          - (b) Biliary tree
      - c. Referred pain
      - d. Hemorrhagic abdominal pain
      - e. Non hemorrhagic abdominal pain
  - B. Assessment findings
    - 1. Scene size-up
      - a. Scene safety
      - b. Personal protective equipment (PPE)
      - c. General impression
        - (1) Trauma
          - (a) Responsive
          - (b) Unresponsive
        - (2) Medical
          - (a) Responsive
          - (b) Unresponsive
    - 2. Initial assessment
      - a. Airway
      - b. Breathing
      - c. Circulation

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A. Upper gastrointestinal bleeding

- a. Incidence
- b. Mortality/ morbidity
- c. Risk factors
- d. Prevention
- e. Anatomy and physiology review
- f. Pathophysiology
  - (1) Lesions
  - (2) Peptic ulceration
  - (3) Erosive gastritis
  - (4) Esophagogastric varices

- a. History
  - (1) Acute/ chronic
  - (2) Vomiting/ hematemesis
  - (3) Stool/ melena
- b. Physical
  - (1) Altered level of consciousness
  - (2) Skin
    - (a) Pale
    - (b) Cool
    - (c) Moist
  - (3) Inspect abdomen
    - (a) Scars
    - (b) Ecchymosis
    - (c) Contour
      - i) Bulges
      - ii) Symmetry
  - (4) Auscultate
    - (a) Bowel sounds
  - (5) Percuss
  - (6) Palpate

- a. Airway and ventilatory support
  - (1) High flow oxygen
- b. Circulatory support
  - (1) Positioning
  - (2) Consider MAST
  - (3) Consider fluid bolus or resuscitation
  - (4) Consider fluid lavage
- c. Psychological support
- d. Transport consideration

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